

## Intestinal Disaccharidase Deficiencies – Implication For the '70s

DR. HERBER HAS PROVIDED elsewhere in these pages a comprehensive review of the intestinal disaccharidases and the syndrome of intolerance to disaccharides that occurs when these intestinal surface enzymes are depressed.

After the initial surge of publications on disaccharidase deficiency in the literature during the last ten years, physicians have undoubtedly become wary of the seeming repetition and are even uncertain whether these entities have any real importance in the average physician's practice. Now we can settle down to the more mature second ten years of the disaccharidase deficiency syndromes.

Whatever the cause of intestinal lactase deficiency, it is extremely common in adults of all racial groups since the prevalence ranges from 80 to 100 percent in American blacks, African Bantus, and Orientals to between 5 and 20 percent in whites of northern European ancestry. Yet these prevalence rates do not seem to be matched by the expected plethora of patients complaining of milk intolerance, probably because they stopped drinking milk long ago for reasons no longer remembered. Who, then, should be evaluated for possible lactase deficiency? Certainly not those who no longer ingest milk and hence are asymptomatic. There are a few adults who, not realizing the association of abdominal symptoms and diarrhea with milk ingestion, become classified imprecisely as having an "irritable bowel" or the "irritable colon syndrome." Some (10 to 20 percent) of these patients can obtain complete relief of symptoms by eliminating milk products from the diet and are presumably lactase deficient. In such patients, an attempt should be made to document lactose intolerance due to lactase deficiency. This can be done by use of the lactose tolerance test with observation of the patient for typical symptoms of abdominal

fullness and diarrhea over a two-hour period after ingestion. If any malabsorption is suspected because of unexplained hyperphagia or weight loss, biopsy and x-ray studies of the small intestine are also indicated. The bulk of the biopsy specimen should be studied histologically but a small wedge (3 mg) can be wrapped in aluminum foil or paraffin sheets (Parafilm, Marathon Products, Neenah, Wisc.) and frozen for future assay. If assays cannot be carried out in a local laboratory, packing in a 1 or 2 quart styrofoam container filled with dry ice will preserve the specimen for shipping to an appropriate laboratory.

In these special circumstances, long-term withdrawal of milk products should be supported by documentation of the intolerance to lactose because empirical removal of milk from the diet may be temporarily effective merely due to the physician's power of suggestion. By carefully selecting the symptomatic patient for evaluation, we now have the capacity to establish the diagnosis of intestinal lactase deficiency and to provide long-term rational care for those afflicted.

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## Getting Quality into Place

THERE HAS BEEN MUCH loose talk about quality in medical care and health care. The term *quality* defies clear definition or description. Webster says "degree of fineness," a phrase which certainly lacks precision. Yet it suggests something inherent in whatever it is that has quality, an object or a service for example, which can be measured against some kind of a scale or value. In medical care and health care the quality or degree of fineness have so far eluded anything like accurate description or definition, let alone accurate measurement in terms of value against a scale of benefit accrued. The present danger is that arbitrary definitions and descriptions and arbitrary measurements of quality will come into general and widespread use to meet the practical economic needs of a sorely tested health care system, but which may have little if any true re-

lationship to the intrinsic fineness of the product or service or its value to the persons who are served.

The development of standards of quality to serve the economic needs of the health care system is already well under way. Since the costs of medical and health care services are largely paid for by the system, whether one speaks of the public or private sector, the system needs some evaluation of the worth of what is being paid for. The variables to be considered appear to be intrinsic "fineness," cost in terms of the "degree" of fineness which is necessary, and the benefits actually accrued whether these be to a patient, to a particular segment of a community or to the system itself.

The economic pressures in health care are already enormous and they are certain to become even greater. And it will be of ever increasing importance that value be received for dollars spent. The question of who will decide what quality of care will be needed in which circumstance, and how this quality will be defined and assessed is therefore in urgent need of answer. It seems likely that there is more to it than accreditation, certification, peer review and continuing education can solve, fundamentally important though each of these admittedly is. Much more needs to be done to define, describe and assess intrinsic "fineness" throughout the whole spectrum of medical and health care, and medicine

would appear to have the major professional responsibility for this, no doubt with the help of others. The relationships of the "degree of fineness" of the product or service to the need of a patient or a community would appear to be a responsibility more broadly shared between medicine and those who are to be served by the product or service. And finally the costs of whatever quality of services are needed would appear to be a responsibility further shared among the medical profession, those who receive the services, and those who must pay at least the major expense of them.

Thus, as we look down the road ahead and see that cost and cost controls are all too likely soon to become the overriding factor in medical and health care, it is not too early to begin to get quality into place. A strong beginning has been made and the tools of professional accreditation, certification, peer review and continuing education will surely be useful and can be developed further. But the role of medicine in defining, describing and assessing the "intrinsic fineness" and in relating the degree of this to cost and benefit must be extended substantially, and the quality of care for which payment is to be made must be determined in a closer collaboration among medicine, those who are to receive the services and those who must pay for them. It is becoming essential that we get quality into place and do so soon.

### EMERGENCY FLUID THERAPY

I am completely opposed to the use of high-protein, high amino acid mixtures or fat mixtures or very high caloric mixtures in urgent or emergency fluid therapy. The only kind of nutrition that is necessary is approximately 100 grams of carbohydrate in a 24-hour period to cut down the adverse effects of total caloric deficit or semistarvation. Other nutrition is absolutely not necessary. In fact, if you give nitrogen in the form of amino acids the only thing you will be doing is making more urea, causing more acidosis. You will not be helping the patient during the emergency period. It's only in late convalescence that liberal caloric fat and protein nutrition has its place.

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